

Application No. 10/700,808
Amendment Dated: September 13, 2007
Office Action Mailed: August 10, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application;

Listing of Claims;

Claim 1 (currently amended): A cover for use with an inflatable modular structure, the inflatable modular structure having a core with at least two longerons and a plurality of attachment elements disposed thereon for cooperating with a plurality of covers such that each cover is releasably attached to the core in the pre-deployed configuration, an inflatable shell attached to the core, the inflatable shell having an internal surface that generally encloses the longerons and the plurality of covers, and in the pre-deployed configuration the inflatable shell is folded over, and secured to, the covers, and in the deployed configuration the inflatable shell is pumped up with air, unfolded from the covers, the covers subsequently released from the core and the covers being removably attached to a plurality of affixing members disposed on the inside surface of the inflatable shell such that the covers serve as a foundation for securing items in place, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis, the arcuate exterior surface of the first segment being adapted to provide protection to the inflatable shell from unwanted contact with the core during the pre-deployed configuration and the arcuate exterior surface having at least one affixing member for cooperating with at least one affixing member on the interior surface of the inflatable shell such that the arcuate exterior surface is removably attached to the interior surface of the inflatable shell during the deployed configuration;

a second segment having a substantially flat surface and the second segment being adapted to substantially secure items in place when the arcuate exterior surface is fastened to the interior surface of the inflatable shell in the deployed configuration; and

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment, and a plurality of attachment elements disposed on the ribs adapted to cooperate with the attachment elements on the longeron such that the cover is releasably attached to the core in the pre-deployed configuration.

Claim 2 (currently amended): A cover for use with a core of an inflatable modular structure, the core having a plurality of attachment elements, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface;

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements; and

the attachment elements on the ribs cooperating with the attachment elements on the core such that the cover is removably attached to the core.

Claim 3 (original): The cover of claim 2 wherein the core further comprises at least two longerons and the cover has a width and each longerons having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons.

Claim 4 (original): The cover of claim 2 wherein the second segment is substantially rigid.

Claim 5 (withdrawn): The core of claim 2 further comprising: a first affixing member disposed on the arcuate surface of the first segment; an inflatable shell attached to the core of the inflatable modular structure and the inflatable shell having an interior surface, the interior surface substantially enclosing the cover and core, and a second affixing

Application No. 10/700,808

Amendment Dated: September 13, 2007

Office Action Mailed: August 10, 2007

member disposed on the interior surface of the inflatable shell; and the first affixing member and the second affixing member cooperating such that the cover is removably affixed to the interior surface of the inflatable shell.

Claim 6 (original): The cover of claim 2 wherein the cover is substantially hollow.

Claim 7 (original): The cover of claim 2 wherein the first segment has an access opening.

Claim 8 (original): The cover of claim 2 wherein the second segment has an access opening.

Claim 9 (currently amended): A cover for use with at least two braces of a core of an inflatable modular structure, the braces having a plurality of attachment elements, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface;

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements; and

the attachment elements on the ribs cooperating with the attachment elements on the braces such that the cover is removably attached to the braces.

Claim 10 (original): The cover of claim 9 wherein the core further comprises at least two longerons and the cover has a width and each longeron having an outer edge and the width of the cover is substantially the distance between the outer edges of the longerons and the cover fits over the longerons.

Claim 11 (original): The cover of claim 9 wherein the second segment is substantially rigid.

Claim 12 (withdrawn): The core of claim 9 further comprising:

a first affixing member disposed on the arcuate surface of the first segment; an inflatable shell attached to the core of the inflatable modular structure and the inflatable

Application No. 10/700,808

Amendment Dated: September 13, 2007

Office Action Mailed: August 10, 2007

shell having an interior surface, the interior surface substantially enclosing the cover and braces, and

 a second affixing member disposed on the interior surface of the inflatable shell;
and

 the first affixing member and the second affixing member cooperating such that
the cover is removably affixed to the interior surface of the inflatable shell.

Claim 13 (original): The cover of claim 9 wherein the cover is substantially hollow.

Claim 14 (currently amended): A cover for use with at least two longerons of a core of an
inflatable modular structure, the longerons having a plurality of attachment elements, the
cover comprising:

 a first segment of at least one substantially sheet like and substantially rigid
structure and having a longitudinal axis, an interior surface, and having an arcuate
exterior surface disposed generally opposite of the interior surface and along the length of
the longitudinal axis; a second segment having a substantially flat surface;

 a plurality of ribs disposed between, and joined to, the inner surface of the first
segment and the substantially flat surface of the second segment and the ribs having a
plurality of attachment elements; and

 the attachment elements on the ribs cooperating with the attachment elements on
the longerons such that the cover is removably attached to the longerons.

Claim 15 (original): The cover of claim 14 wherein the cover has a width and each
longeron having an outer edge and the width of the cover is substantially the distance
between the outer edges of the longerons.

Claim 16 (original): The cover of claim 14 wherein the second segment is substantially
rigid.

Claim 17 (original): The cover of claim 14 wherein the first segment has an access
opening.

Claim 18 (original): The cover of claim 14 wherein the second segment has an access
opening.

Claim 19 (withdrawn): The core of claim 14 further comprising:

Application No. 10/700,808
Amendment Dated: September 13, 2007
Office Action Mailed: August 10, 2007

a first affixing member disposed on the arcuate surface of the first segment; an inflatable shell attached to the core of the inflatable modular structure and the inflatable shell having an interior surface, the interior surface substantially enclosing the cover and longerons, and a second affixing member disposed on the interior surface of the inflatable shell; and

the first affixing member and the second affixing member cooperating such that the cover is removably affixed to the interior surface of the inflatable shell.

Claim 20 (original): The cover of claim 14 wherein the cover is substantially hollow.

Claim 21 (currently amended): A cover for being removably attached to a core of an inflatable modular structure having attachment elements disposed thereon, the cover comprising:

a first segment of at least one substantially sheet like and substantially rigid structure and having a longitudinal axis, an interior surface, and having an arcuate exterior surface disposed generally opposite of the interior surface and perpendicular to the length of the longitudinal axis;

a second segment having a substantially flat surface; and

a plurality of ribs disposed between, and joined to, the inner surface of the first segment and the substantially flat surface of the second segment and the ribs having a plurality of attachment elements for cooperating with the attachment elements on the core.

Claim 22 (withdrawn): A core of an inflatable modular structure having at least two longerons and a plurality of attachment elements disposed on the longerons for cooperating with, and being removably attached to, the attachment elements of the cover of claim 21.

Claim 23 (withdrawn): A core of an inflatable modular structure having at least two braces and a plurality of attachment elements disposed on the braces for cooperating with, and being removably attached to, the attachment elements of the cover of claim 21. attachment elements of the cover of claim 21.

Claim 24 (withdrawn): A method of using a cover with a core of an inflatable modular structure having an inflatable shell comprising the steps of;

Application No. 10/700,808
Amendment Dated: September 13, 2007
Office Action Mailed: August 10, 2007

attaching a plurality of covers to the core in a pre-deployed configuration;
folding the inflatable shell about the covers in the pre-deployed configuration;
unfolding the inflatable shell in the deployed configuration;
inflating the inflatable shell in the deployed configuration;
detaching the covers from the core in the deployed configuration; and
attaching the covers to the inflatable shell in the deployed configuration.

Claim 25 (withdrawn). A method of using a cover with a core of an inflatable modular structure having a plurality of attachment elements thereon and an inflatable shell which utilizes the cover of claim 2.

Claim 26 (withdrawn): A method of using a cover with a core of an inflatable modular structure having a plurality of braces and attachment elements disposed thereon and an inflatable shell comprising the steps of;

attaching a plurality of covers to the core in a pre-deployed configuration;
folding the inflatable shell about the covers in the pre-deployed configuration;
unfolding the inflatable shell in the deployed configuration;
inflating the inflatable shell in the deployed configuration;
detaching the covers from the core in the deployed configuration; and
attaching the covers to the inflatable shell in the deployed configuration.

Claim 27 (withdrawn): The method of claim 26 utilizing the cover of claim 9.

Claim 28 (withdrawn): A method of using a cover with a core of an inflatable modular structure having a plurality of longerons and attachment elements disposed thereon and an inflatable shell comprising the steps of;

attaching a plurality of covers to the core in a pre-deployed configuration; folding the inflatable shell about the covers in the pre-deployed configuration;
unfolding the inflatable shell in the deployed configuration;
inflating the inflatable shell in the deployed configuration;
detaching the covers from the core in the deployed configuration; and attaching the covers to the inflatable shell in the deployed configuration.

Claim 29 (withdrawn): The method of claim 28 utilizing the cover of claim 14.